

Anaplan Connector for MuleSoft

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Overview

The Anaplan Connector for Mulesoft allows you to create solutions that can extract, transform, and load data from a source system into Anaplan. Mulesoft provides an Eclipse-based graphical environment, Anypoint Studio, for designing and configuring integration solutions with Mulesoft's library of more than one hundred [Connectors](#) to other applications, such as Workday, Salesforce.com, and SAP.

The Anaplan Connector for Mulesoft can be used for import, export, and delete actions in an orchestration of services that Mulesoft calls a [Flow](#). For example, the Flow you build might:

- Import data into Anaplan from a database, [Salesforce.com](#), or a CSV file
- Export a recently updated Module from Anaplan into a CSV file, or import into a target, such as a database or Salesforce.com
- Perform data transformations on a schedule
- Delete obsolete data
- Perform a model-to-model import

You will configure the Anaplan Connector with credentials to connect to a data source and perform operations. With the Anaplan Connector for Mulesoft, you can build Anypoint flows that work with:

- Anaplan Lists
- Anaplan Modules
- Anaplan User Access

The Anaplan Connector is an alternative to [Anaplan Connect](#), Anaplan's command-line tool that uses batch files and allows automated scheduling on the operating system scheduling tool.

Mulesoft Prerequisites

- User is familiar with the Mulesoft Anypoint platform.
- Have an installation of Mulesoft's Anypoint Studio, which is the development environment for building an integration solution with the Anaplan Connector for MuleSoft. Anypoint Studio is available for download at <http://www.mulesoft.com/platform/mule-studio>.

Anaplan Prerequisites

- Know about the Anaplan actions – import, export, process, and delete – which are explained at <https://community.anaplan.com/anapedia/around-the-platform/settings-tab/actions>
- Have verified that Anaplan already has the actions that your Mule Flow will automate.
- For Authentication, already have an Anaplan username/password, or a Certificate, which is explained at <https://community.anaplan.com/anapedia/getting-started/end-user/certificates>
- Ensure that the Anaplan model you are working with does not assume that the data is coming from a particular integration. For example, some Anaplan models have an internal integration with [Salesforce.com](#) and therefore will not work with the Mulesoft integration if Salesforce is used as a source.

Installation

To setup Anypoint Studio and the execution environment, follow the instructions listed in "Setup Environment". Skip to "Install Anaplan Connector"

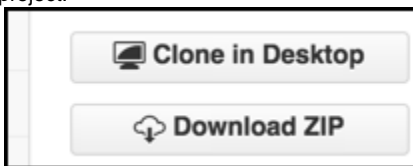
if you already have your environment setup:

1. Setup Environment

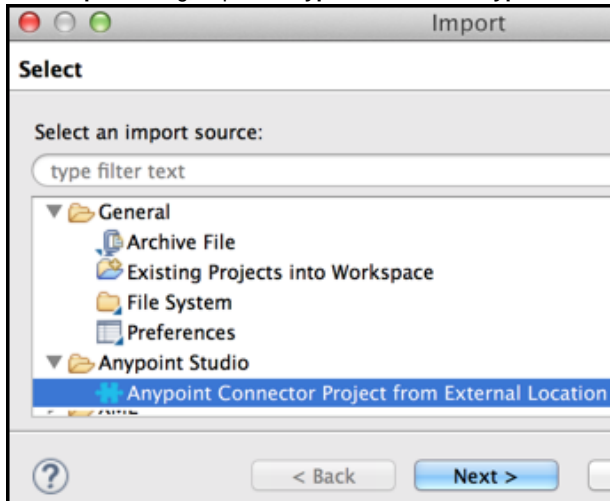
- Install:
 - i. [Java 7](#)
 - ii. [Maven](#)
 - iii. [Anypoint Studio](#)
- [Download Anypoint Studio](#) and install it .
- Configure Maven:
 - i. Click **Anypoint Studio > Preferences > Anypoint Studio > Maven Settings**.
 - ii. Click **Browse** to locate the folder where you installed Maven.
 - iii. Click **Test Maven Configuration** and when you see the green checkmark, click **OK**.
- Install the DevKit Plugin:
 - i. Click **Install New Software**.
 - ii. Click **Work with > Anypoint Addons Update Site > Anypoint Devkit Plugin**.
 - iii. Click **Next**, **Finish**, and restart Studio

2. Install the Anaplan Connector

- a. Go to the Github page, <https://github.com/anaplaninc/anaplan-mulesoft>, and either clone the project or download the zip of the project.



- b. In Anypoint Studio, click **File > Import**.
- c. In the **Import** dialog, expand **Anypoint Studio > Anypoint Connector Project from External Location**.

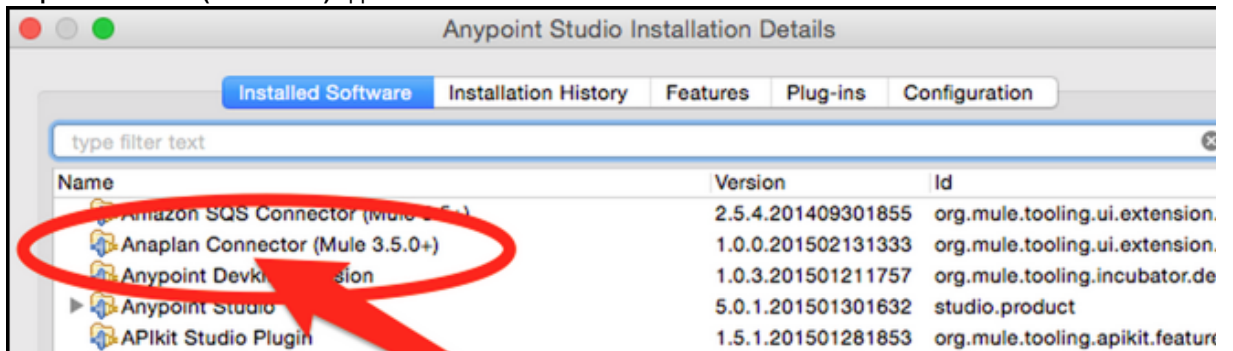


- d. Click **Next**, click **Browse**, and open the project where you unzipped it.
- e. Note that **anaplan-connector** appear in the **Package Explorer** pane.
- f. Right-click the project, **Anypoint Connector > Install or Update**.
- g. Follow the wizard to install the connector, ignore the warning about "unsigned content" and restart Anypoint Studio when prompted.
That's it! The Anaplan Connector is now installed.
- h. To verify the installation, on the **Anypoint Studio** menu, open the **About Anypoint Studio** dialog:



- i. Click the **Installation Details** button.

Anaplan Connector (Mule 3.5.0+) appears as installed software:

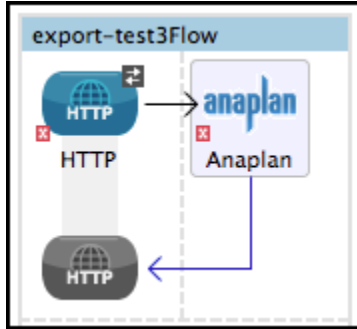


Export

You can create a Flow that exports a List, Module, or a set of Users, from Anaplan into another data-source, such as a CSV file or Salesforce.com.

Let's start with a simple example.

1. In Anypoint Studio, on the **File** menu, click **New > Mule Project**.
2. Enter the project name and check "Use Maven" if you wish to maven-ize this flow project. Click **Finish**.
3. In the **Message Flow** tab, build your flow by dropping Connectors into the Anypoint Studio Flow area as shown below:

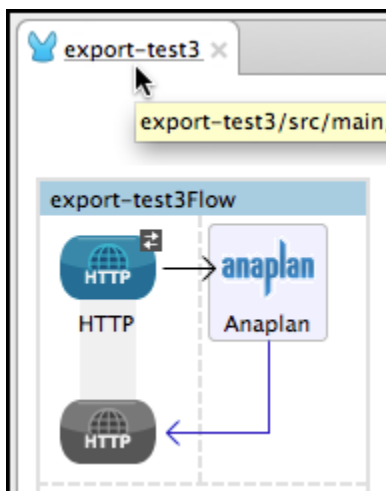


In this example, we configured the HTTP connector to listen on localhost:8081 to initiate the Anaplan export. The output from the connector is then piped back to the HTTP connector to build a HTTP response so that we can view the results.

- To configure the Anaplan connector, double-click the **Anaplan** connector icon on the flow, which will bring up a configuration panel as below:

The screenshot shows the configuration panel for the Anaplan connector. It has two tabs: 'Basic Settings' and 'General'. Under 'Basic Settings', the 'Connector Configuration' is set to 'AnaplanTest' and the 'Operation' is set to 'Export'. Under the 'General' tab, the 'Export name or ID' is 'Grid - GL Transactions.csv', the 'Model name or ID' is '582', and the 'Workspace name or ID' is '8a'.

- Set up the Anaplan authentication configuration, by clicking the "+" button next to the "Connector Configuration" field. See [Basic or Certificate Authentication](#) for details on setting up a Username/Password based authentication or a Certificate based authentication.
- Save your Flow (Cmd + S on Mac, or Ctrl + S on Windows).
- Make sure your Flow tab is active.



- On the **Run** menu, click **Run As > Mule Application**.
- Note that the console indicates the Flow is deployed.

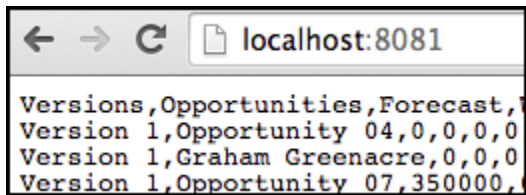
```

Console
testexport [Mule Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_05.jdk/Contents/Home/bin/java (Jan 27, 2015 2:42:50 PM)
+++++
INFO 2015-01-27 14:42:57,297 [main] org.mule.module.launcher.StartupSummaryDeploymentListener:
*****
*      - - + DOMAIN + - -      *      - - + STATUS + - - *
*****
*****

*****
*      - - + APPLICATION + - -      *      - - + DOMAIN + - -      *      - - + STATUS + - - *
*****
* testexport                      * default                      * DEPLOYED                      *
*****

```

10. Execute the Flow by opening a browser to <http://localhost:8081>.
11. Verify that the output of the Export displays on the HTML page:

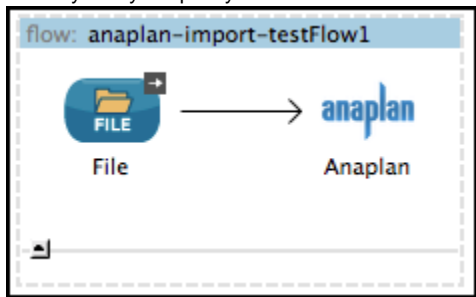


Import

You can create a Flow that imports from another data-source, such as a CSV file or Workday, into Anaplan.

Let's start with a simple example.

1. In Anypoint Studio, on the **File** menu, click **New > Mule Project**, and proceed though the dialogs.
2. On the Anypoint Studio **Message Flow** tab, build your flow by dropping Connectors into the Anypoint Studio Flow area.
This example imports a .csv file from a directory your specify, brings the data into a List in Anaplan, and moves the .csv file to another directory that you specify.



3. Configure the **File** connector with the following:
 - a. **Path** to the directory that holds the .csv file. The Flow will attempt to operate on any and all files in this original directory.
 - b. **Move to Directory** that receives the file after the import completes. This empties the original Path directory. Whenever a file is added to the Path directory, the flow automatically runs again.

Display Name:

Basic Settings

Path:

Move to Pattern:

Move to Directory:

Connector Configuration:

- Set the Anaplan Authentication. See [BasicorCertificateAuthentication](#).
- Configure the **Anaplan** connector for the Import **Operation**, and specify the **Import name or ID**, the **Model name or ID**, and the **Workspace name or ID**.

Basic Settings

Connector Configuration:

Operation:

General

Column separator:

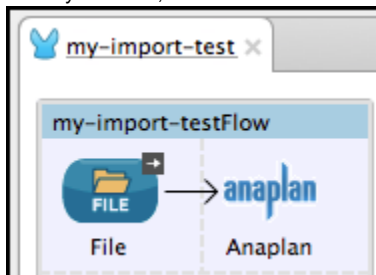
Delimiter:

Import name or ID:

Model name or ID: A

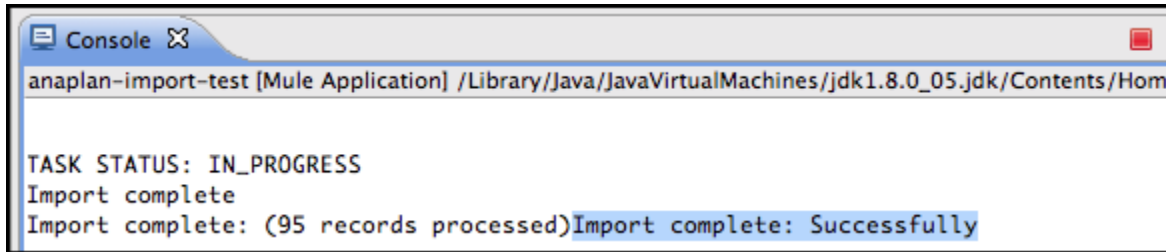
Workspace name or ID: 3fe785786

- Select your Flow,



and, on the **Run** menu, click **Run As > Mule Application**.

- Note that the **Console** indicates the result:



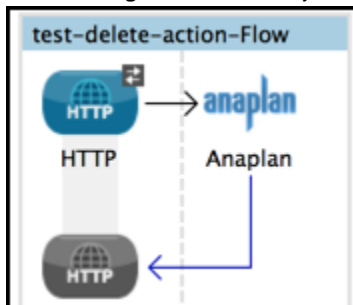
- To verify the Import, look at the model inside Anaplan. For example, if you imported into a List, that List now shows the imported data.

Note: By default, the Flow automatically runs again each time a file appears in the original **Path** directory. If you want to prevent this automatic triggering, go to Anypoint Studio **Console** and click the red square.



Delete

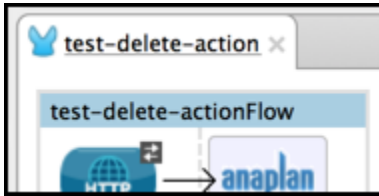
- In Anypoint Studio, on the **File** menu, click **New > Mule Project**.
- In the **Message Flow** tab, build your flow by dropping Connectors into the Anypoint Studio Flow area.



- Double-click the **Anaplan** connector.
- Set the Anaplan Authentication. See [BasicCertificateAuthentication](#).
- For **Operation**, choose **Delete**, then supply the name or ID of the action, model, and workspace.

Display Name:	Anaplan
Basic Settings	
Connector Configuration:	Anaplan_Certificate_Authentication1
Operation:	Delete
General	
Delete action name or ID:	Clear Departments L3
Model name or ID:	582FC8D215227F403C82D8F54008C62288
Workspace name or ID:	84E11548B4139F4E1301462767794781786

- Save your Flow.
- Select your Flow,



and, on the **Run** menu, click **Run As > Mule Application**.

This puts the Flow in the "deployed" state.

```

+++++
+ Mule is up and kicking (every 5000ms) +
+++++
INFO 2015-02-11 13:19:11,078 [main] org.mule.module.launcher.9
*****
* - - + DOMAIN + - - * - - + STATUS
*****
* default * DEPLOYED
*****
*****
* - - + APPLICATION + - - * - - + [
*****
* my_delete_action * default
*****

```

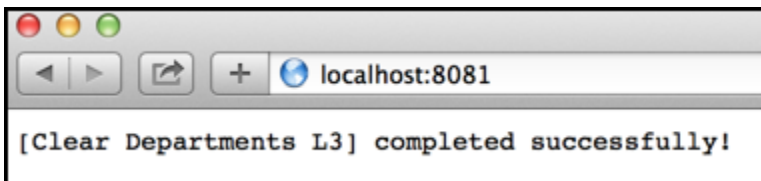
8. To run the Flow, refresh a browser that is set to <http://localhost:8081/>
9. Watch the Flow run in the Anypoint Studio Console.

```

Status: SUCCESS, Response message: COMPLETE
.
s L3] [Clear Departments L3] completed successfully!

```

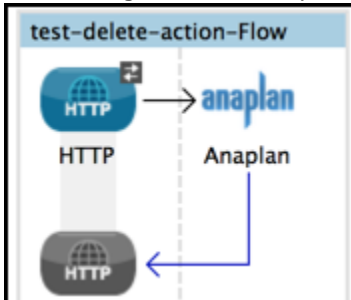
10. Refresh your browser that is still pointing at <http://localhost:8081> to see the outcome message.



Process

A Process is an ordered set of multiple actions in a single container. The set can contain Import, Export, and/or Delete actions. What follows is a simple example that contains multiple Delete actions.

1. In Anypoint Studio, on the **File** menu, click **New > Mule Project**.
2. In the **Message Flow** tab, build your flow by dropping Connectors into the Anypoint Studio Flow area.



3. Double-click the **Anaplan** connector.
4. Set the Anaplan Authentication. See [Basic or Certificate Authentication](#).
5. For **Operation**, choose **Process**, then supply the name or ID of the action, model, and workspace.

Display Name: Anaplan

Basic Settings

Connector Configuration: Anaplan_Certificate_Authentication

Operation: Process

General

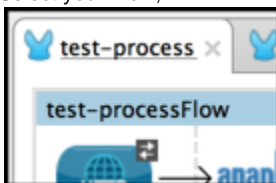
Model name or ID: 582FC8021627F4401C82D8F54008C622B8

Process name or ID: Clear Asset Name

Workspace name or ID: 8081194884139F4E330146267394785786

6. Save your Flow.

7. Select your Flow,



and, on the **Run** menu, click **Run As > Mule Application**.

This puts the Flow in the "deployed" state.

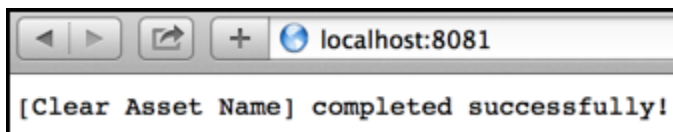
```
*****
*      - - + APPLICATION + - - *      - - + DOMAIN + - - *      - - + STATUS + - - *
*****
* test-process                      * default                      * DEPLOYED                      *
*****
```

8. To run the Flow, refresh a browser that is set to <http://localhost:8081/>

9. Watch the Flow run in the Anypoint Studio Console, which displays the name of the Process within Anaplan.

```
Mule Properties View Console x
test-process [Mule Applications] /Library/Java/JavaVirtualMachines/jdk1.7.0_75.jdk/Contents/Home/bin/java (Feb 20,
rs://api.anaplan.com/] [null] connection to API failed: Proceeding...
rs://api.anaplan.com/] [null] << Starting Process >>
rs://api.anaplan.com/] [null][Clear Asset Name] [Clear Asset Name] completed successfully!
```

10. Refresh your browser that is still pointing at <http://localhost:8081> to see the outcome message, which displays the name of the Process within Anaplan.





Basic or Certificate Authentication


To set up Authentication, you perform the following steps, whether it is for [Export](#), [Import](#), or Execution Action (for a [Delete](#) action).

- Click the  button:

Display Name:

Basic Settings

Connector Configuration:  

Operation: 

- In the Choose Global Type dialog, click either **Basic Authentication** (username, password) or **Certificate Authentication**.

Choose Global Type

Choose the type of global element to create.

Filter:

- Connector Configuration
 - Anaplan: Basic Authentication
 - Anaplan: Certificate Authentication

- If you clicked Basic Authentication, populate the **Username** and **Password** fields, click **Test Connection** to verify that the credentials work, then click **OK**.

Global Element Properties

Anaplan

Global Anaplan configuration information.

General Pooling Profile Reconnection Notes

Basic Settings

Name:

Connection

Username:


Password: ☒ Show password

Url:

Proxy Host:


Proxy User:

Proxy Pass:




- If you clicked Certificate Authentication, in the **Certificate Path** field, click the "..." button to navigate to the certificate, then click **Test**

Connection to verify that the credentials work, then click **OK**.



Anaplan: Certificate Authentication
 Attribute 'certificatePath' is required

General | Pooling Profile | Reconnection | Notes

Basic Settings

Name:  Anaplan__Certificate_Authentication1

Connection

Certificate Path:  

Url:

Proxy Host:

Proxy User:

Proxy Pass:

